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ecology and environment, inc.

223 WEST JACKSON BLVD., CHICAGO, ILLINOIS 60606, TEL. 312-663-9415

International Specialists in the Environmental Sciences

M E M O R A N D U M

DATE: April 17, 1984
TO: File
FROM: Paul Hess
SUBJECT: Indiana/TDD R5-8307-04-085
Gary/Gary Development Sample Results

The sample results received from the U.S. EPA Contract Laboratories along with a table of these findings and a sampling point map are attached to this memo. The samples were collected on December 12, 1983 by FIT.

The organic and heavy metal contaminants found in the water samples obtained from the two (2) on-site monitoring wells are not attributed to this site or its buried hazardous waste. The rational for this evaluation was drawn from the following on-site observations of site conditions:

1. The two (2) monitoring wells are located outside of the pits' clay side-wall lines and clay dike.

2. The water table elevation at the two wells and the surrounding area is some 20 to 30 feet above the water table elevation of the landfill.

3. The shallow groundwater at both wells is surmised to be flowing towards the open depression near the center of the landfill.

4. There are three (3) known hazardous waste areas upgradient of these wells that are credited with their contamination. (The Grand Calumet River is influencing well #1, and the City Service and Conservation Chemical disposal sites are influencing well #2).

Therefore, these two (2) monitoring wells are considered to be upgradient wells with contamination from other sources.

The organic contaminants found in the "west ditch" sample are attributed to this site. Indiana State Board of Health site inspector have noted the discharge of site leachate to this shallow surface water body. However, the heavy metal contamination of the ditch as indicated by the sample results is attributed to the Vulcan Material Plants' surface impoundment that lies less than 50 feet west of this ditch.

PH:4T

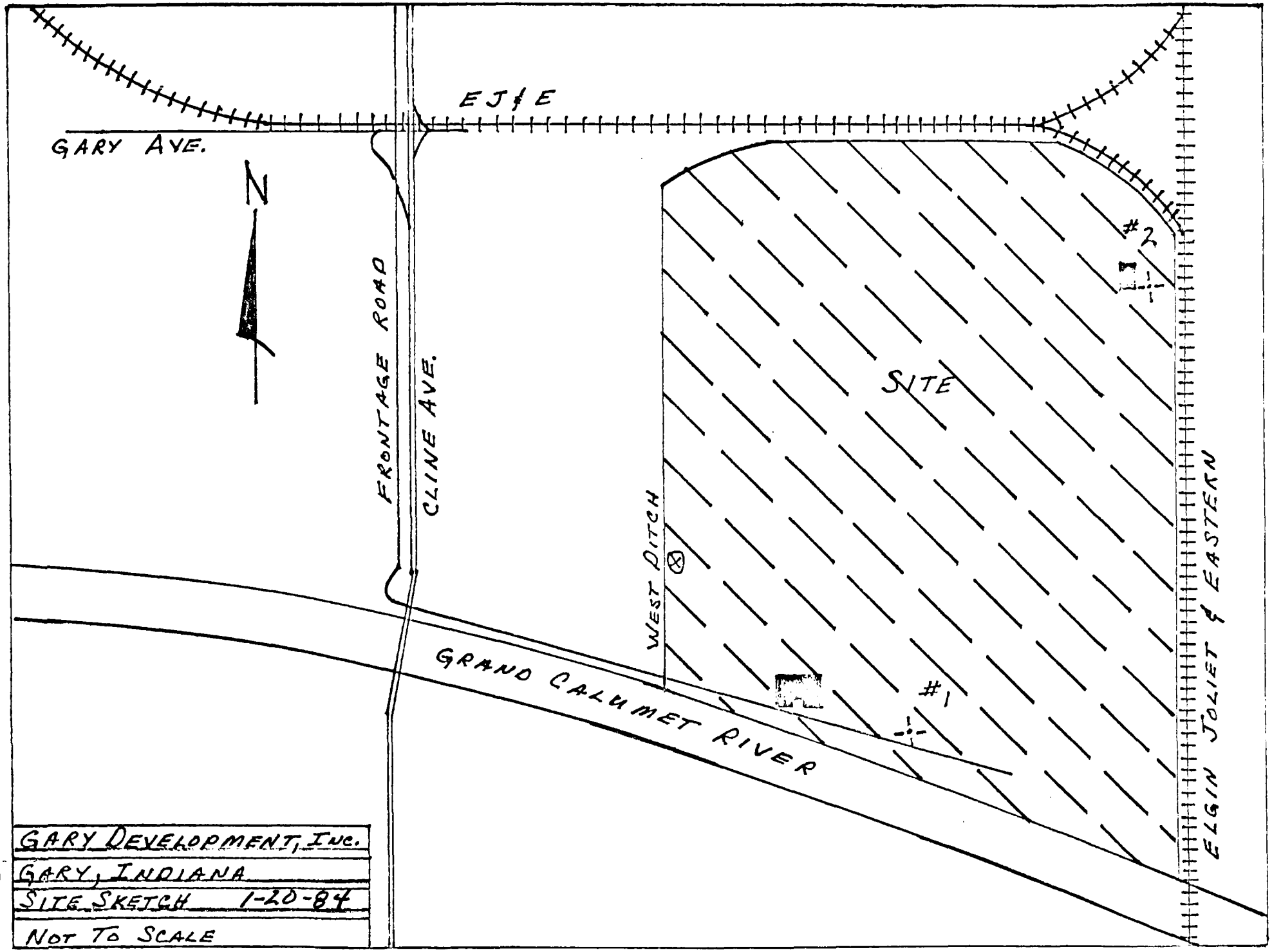
GARY AVE.
E J & E
N
FRONTAGE ROAD
CLINE AVE.
WEST DITCH
SITE
#2
#1
GRAND CALUMET RIVER
ELGIN JOLIET & EASTERN
GARY DEVELOPMENT, INC.
GARY, INDIANA
SITE SKETCH 1-20-84
NOT TO SCALE

TABLE 1 - GARY DEVELOPMENT LANDFILL SAMPLING RESULTS

	CAS #	Lab Blank	Field Blank	Monitor Well #1	Monitor Well #2	Monitor Well #2 Dup	West Ditch
Organic Compounds		-	E-3364	E-3365	E-7166	E-7167	E-7168
trichloroethene	79-01-6	-	68 K	5 K	-	-	-
1,1-dichloroethane	75-34-3	-	-	11 K	15 K	9 K	-
trans-1,2-dichloroethene	136-60-3	-	-	-	5 K	-	-
tetrachloroethene	127-18-4	5 K	-	-	-	-	-
methylene chloride	73-09-2	27 K	-	-	-	-	-
toluene	108-88-3	5 K	5 K	-	-	-	-
o-xylene	1330-20-7	5 K	-	-	-	-	-
acetone	67-64-1	14 K	-	-	-	-	-
2-butanone	78-93-3	-	-	-	-	510 K	-
1-BHC	319-84-6	-	-	-	-	-	0.009 K
bis(2-ethylhexyl)phthalate	117-81-7	10 K	-	-	-	-	-
benzylbutyl phthalate	83-68-7	-	-	-	-	10 K	10 K
di-n-butyl phthalate	84-74-2	-	-	-	-	10 K	-
acenaphthylene	208-96-8	-	-	-	-	10 K	10 K
pyrene	129-00-0	-	-	-	-	10 K	-
Heavy Metals		-	ME-1659	ME-1660	ME-1661	ME-1662	ME-1663
nickel	1313-99-1	-	-	-	130.0 K	138.0 K	266.0 K
arsenic	7440-38-2	-	-	-	-	-	10.0 K
zinc	7440-66-6	-	12.0 K	62.6 K	44.6 K	59.7 K	149.0 K
boron		-	-	2,1130 K	535 K	20,110 K	6,725 K
cadmium	7440-43-9	-	-	-	4.9 K	-	-
lead	7439-92-1	-	-	20.0 K	16.0 K	21.0 K	61.0 K

Note: K = u.g/l